

DRAFT

**TECHNICAL REVIEW AND EVALUATION FOR SIGNIFICANT REVISION #43398  
TO  
OPERATING AIR QUALITY PERMIT #1000046  
(As revised by Significant Revision No. 29622)  
PHELPS DODGE MIAMI, INC.**

**I. INTRODUCTION**

This Class I Significant Revision to Operating Permit No. 1000046 (as revised by Significant Revision No. 29622) is being issued to Phelps Dodge Miami Smelter, the Permittee, for installation of a Coal Injection System for pulverizing coal and injecting pulverized coal, instead of coarse coal, into the Isa vessel.

**A. Company Information**

Facility Name: Phelps Dodge Miami Smelter  
Mailing Address: P.O. Box 4444  
Claypool, Arizona 85532  
Facility Address: Hwy 60, North of Miami,  
Miami, Gila County, Arizona 85532

**B. Attainment Classification**

Miami area is currently designated as a non-attainment area for Particulate Matter less than 10 microns (PM<sub>10</sub>).

**C. Learning Sites Evaluation**

There are 6 (six) schools within 2 miles of the facility.

**II. FACILITY DESCRIPTION**

Phelps Dodge Miami proposes to install a coal injection system for pulverizing coal and injecting pulverized coal (instead of feeding coarse coal) to the Isa vessel. In the coal injection system, coal is crushed in an impact mill, and air swept by hot air heated by a natural gas heater to the cyclone separator. Crushed coal from the cyclone goes to a vibrating screen. Oversize material is sent back to crusher. Fine crushed coal is sent to the Isa vessel via the buffer hopper and Roto Feed injection system. The facility has voluntarily proposed to install a pulse jet dust collector on the coal injection system to control particulate matter emissions.

**III. EMISSIONS**

The increase in emissions of the criteria pollutants with addition of the coal injection system is less than the significant thresholds. Details of emissions for criteria pollutants are provided in Table 1 below.

**Table 1: Facility-Wide Emissions**

Pollutant	Increase in emissions (tpy)
CO	0.72
NO <sub>x</sub>	0.86
SO <sub>2</sub>	0.01
PM <sub>10</sub>	0.64
VOC	0.05

**IV. APPLICABLE REQUIREMENTS**

The Permittee will operate a dust collector (pulse jet baghouse or cartridge filter) on the coal injection system to control particulate matter emissions. Thus, the Permittee seeks to establish a permit term or condition for which there is no corresponding underlying applicable requirement. In accordance with Arizona Administrative Code (A.A.C.) 18-2-319-A.4, this change cannot be permitted as a minor permit revision. Therefore, this revision is considered a significant permit revision.

**V. AIR POLLUTION CONTROL REQUIREMENT**

The Permittee is required to operate and maintain at all times, the dust collector (pulse jet dust baghouse or cartridge filter) on the coal injection system, for minimizing particulate matter emissions.

**VI. MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS**

A certified EPA Reference Method 9 observer is required to conduct a bi-weekly (once in two weeks) survey of visible emissions emanating from the coal injection system. If the opacity of the emissions observed appears to exceed the standard, the Permittee shall conduct a certified EPA Reference Method 9 observation. If the observation results in an exceedance of the opacity standard, the Permittee must take corrective action and log all such actions. Any such exceedance must be reported as excess emissions.

**VII. LIST OF ABBREVIATIONS**

- A.A.C. .... Arizona Administrative Code
- ADEQ .....Arizona Department of Environmental Quality
- EPA .....Environmental Protection Agency
- CO ..... Carbon Monoxide
- lb ..... Pound
- NO<sub>x</sub> ..... Nitrogen Oxide
- PM<sub>10</sub>..... Particulate Matter Nominally less than 10 Micrometers
- SO<sub>2</sub>..... Sulfur Dioxide
- TPY ..... Tons per Year
- VOC..... Volatile Organic Compound